VETERINARY CALL

by Bob Larson, Kansas State University

The Ideal Cow

Gain an inside look to what traits a veterinarian finds desirable in a cow.

Efficient and productive cows are the foundation for every beef herd. The best cows are those that have great reproductive performance while relying primarily on available forage for their nutrient needs, and produce calves that grow efficiently and produce a valuable carcass. I place reproductive efficiency and longevity as the most important characteristics because without these qualities, no calf is able to grow efficiently.

The best cows have to start as the best heifers. The best heifers are those that reach puberty before the start of their first breeding season, are fertile, can become pregnant early in the breeding season, are resistant to any abortion-causing diseases, can give birth with little difficulty and care for the calf without assistance.

Although I don't have the perfect ability to identify these ideal replacements, I do think several obvious characteristics can be used to differentiate between heifers likely or unlikely to grow into a great cow.

First of all, heifers born early in the calving season will be old enough to reach puberty prior to their first breeding season and are the daughters of cows that became pregnant early in the breeding season. Therefore, I place a lot of value on heifers born in the first 30 days of calving.

I also look closely at the dams of potential replacement heifers and exclude daughters from cows I don't want to replicate because they are difficult to handle; require more supplemental feed to maintain body condition than other cows in the herd; and have feet, leg or udder problems that could have a genetic component.

The expected progeny differences (EPDs) of the sires of potential replacement heifers should also be evaluated with emphasis placed on traits such as adequate maternal calving ease (CEM), heifer pregnancy (HP) and cow energy value ($EN).

Because heifers are more susceptible to abortion-causing diseases than older cows, it is particularly important replacement heifers are well-vaccinated against diseases such as IBR (infectious bovine rhinotracheitis), BVD (bovine viral diarrhea), leptospirosis, vibriosis, and possibly brucellosis. You should work closely with your veterinarian to plan the most effective vaccination strategy for your herd.

The final test of whether or not a potential replacement heifer should be selected to enter the herd is if she can become pregnant early in her first breeding season. Some producers only retain heifers that become pregnant in the first 21 to 30 days of breeding.

By doing so, those producers are placing strong selection pressure on traits such as age at puberty and fertility, which positively affects not only that replacement — but any future daughters from that heifer.

Because high reproductive efficiency (defined as weaning a healthy calf each year) is usually considered the most economically important trait of beef cows and feed costs are among the highest expenses, identifying and replicating cows that excel at reproduction, calf care and maintaining body condition on available forages is key to efficient cow herd production.

Genetic selection, nutritional and health management, and good animal husbandry are all needed to create a herd full of ideal cows. AJ

Editor's note: Robert L. Larson is a professor of production medicine and executive director of Veterinary Medicine Continuing Education at Kansas State University in Manhattan, Kan.